

IN THE CLAIMS:

Please CANCEL claims 1-8 and 11-15 without prejudice to or disclaimer of the recited subject matter.

Please AMEND claims 9 and 10, and ADD new claims 16-25, as follows.

1-8. (Canceled)

9. (Currently Amended) A stage apparatus according to Claim [[1]] 16, wherein ~~the temperature controller~~ said heat exchanger is disposed near ~~the~~ an outer periphery of ~~the~~ said moving unit.

10. (Currently Amended) A stage apparatus according to Claim [[1]] 16, further comprising a laser interferometer for measuring the position of ~~the~~ said moving unit.

11-15. (Canceled)

16. (New) A stage apparatus comprising:

a moving unit;

a linear motor which drives said moving unit along a surface of a base plate and includes a coil unit in said moving unit;

a gas bearing which supports said moving unit on the base plate; and

a heat exchanger which cools said coil unit and is provided in said moving unit,  
wherein said heat exchanger cools a gas used by said gas bearing.

17. (New) A stage apparatus according to Claim 16, wherein said heat exchanger is disposed between said coil unit and a substrate mounted on said moving unit.

18. (New) A stage apparatus according to Claim 16, further comprising a supply pipe which forms part of said gas bearing and is disposed adjacent to said heat exchanger.

19. (New) A stage apparatus according to Claim 18, wherein said heat exchanger uses a coolant, and the direction in which the coolant flows is opposite to that in which the gas flows through said supply pipe.

20. (New) A stage apparatus according to Claim 18, wherein said heat exchanger uses a coolant, and at least a portion of said supply pipe is surrounded by the coolant.

21. (New) A stage apparatus according to Claim 16, wherein said moving unit comprises a fine-motion actuator which moves a substrate mounted on said moving unit, and said heat exchanger is disposed between said coil unit and said fine-motion actuator.

22. (New) A stage apparatus comprising:

a first moving unit;

a linear motor which drives said first moving unit along a surface of a base plate

and includes a coil unit in said first moving unit;

a second moving unit which moves with respect to said first moving unit; and

a heat exchanger disposed between said first and second moving units, to absorb a heat transmission from said coil unit to said second moving unit.

23. (New) A stage apparatus according to Claim 22, wherein said second moving unit moves within a range smaller than that of said first moving unit.

24. (New) A stage apparatus according to Claim 16, wherein said linear motor is a surface motor.

25. (New) A stage apparatus according to Claim 22, wherein said linear motor is a surface motor.